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## MEADE COUNTY

### (Meade County Water Service Area Map)

- Estimated 1999 population of 29,800--54% on public water
- Estimated 2020 population of 42,900--63% on public water
- 180 miles of water lines, with plans for 120 additional miles
- Estimated funding needs for public water 2000-2005--\$6,000,000
- Estimated funding needs for public water 2006-2020--\$1,800,000

Meade County had an estimated population of 29,802 (9,700 households) in 1999 with a projected population of 42,900 (17,400 households) in 2020. If, indeed, this 50 percent projected increase in population occurs, it will have a significant impact on the public water systems. Public water is provided to about 54 percent of the county's residents. In areas of the county not served by public water, about 80 percent of the households rely on private domestic wells and 20 percent the households rely on other sources. About 1,590 customers will be added to public water service through new line extensions in 2000-2020.

#### *Estimated Costs - Proposed Projects, 2000-2005*

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000
MEADE								
Meade County Water District	90	1,040	4,000				2,000	6,000
TOTAL	90	1,040	4,000				2,000	6,000

#### *Estimated Costs - Proposed Projects, 2006-2020*

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000
MEADE								-
Brandenburg Water Works	5	46	300					300
Meade County Water District	23	500	1,500					1,500
TOTAL	28	546	1,800				-	1,800

### PUBLIC WATER SYSTEMS

Meade County Water District, the Brandenburg Water Works, Muldraugh Water Supply, Doe Valley Utilities, Inc., the Ekron Water Systems, and 5 non-community systems presently provide the residents of Meade County water.

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# WATER SERVICE AREAS

## MEADE COUNTY

Kentucky

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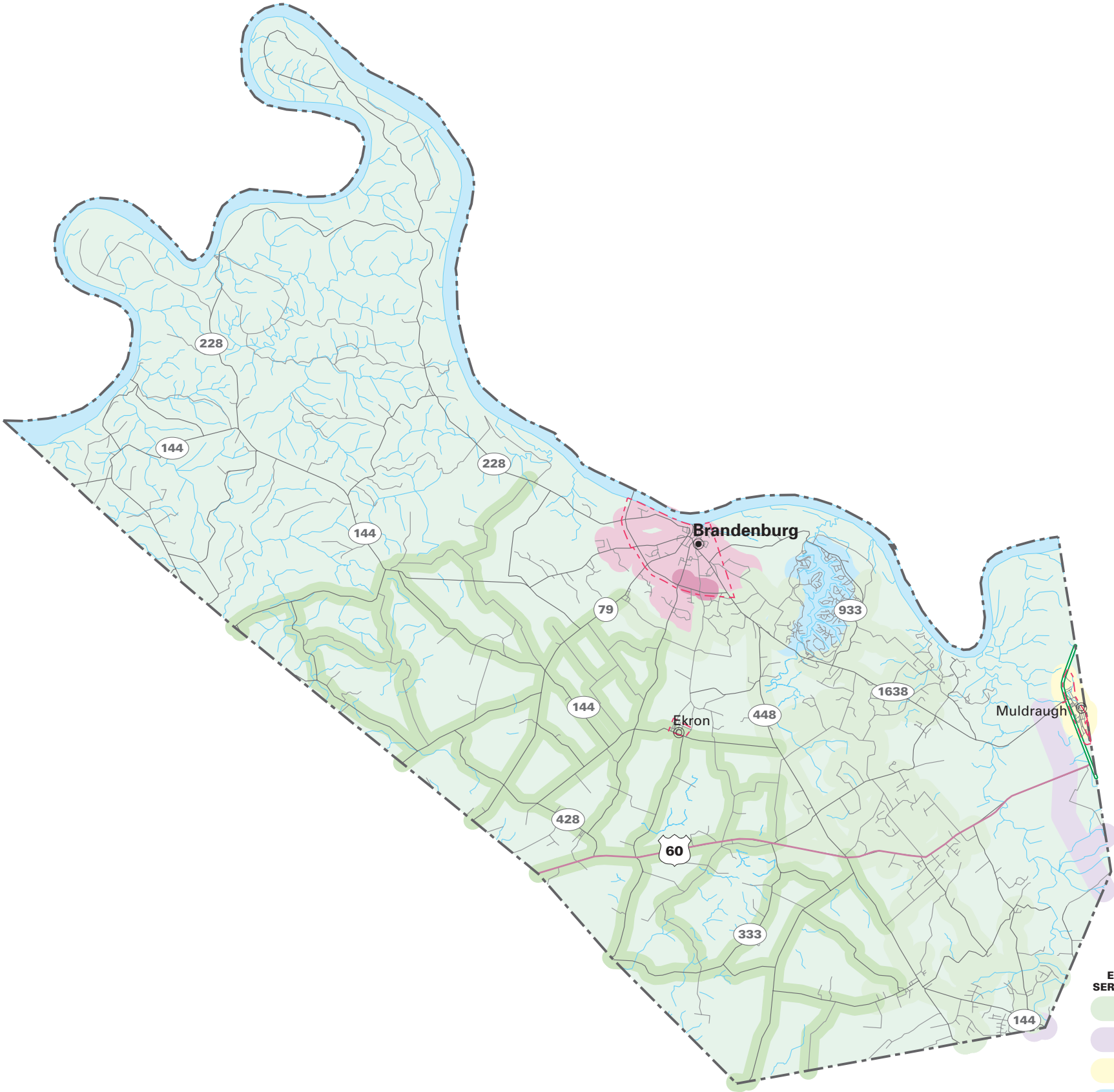
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### WATER SERVICE STATUS BY OWNER

EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		MEADE COUNTY WATER DISTRICT
		HARDIN COUNTY WATER DISTRICT #1
		CITY OF MULDRAUGH
		CITY OF DOE VALLEY
		BRANDENBURG WATER WORKS

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**MEADE COUNTY WATER DISTRICT**

PWSID: ..... 0820369  
System Type: ..... COMMUNITY  
Owner Type: ..... WATER DISTRICT  
Surface Source:  
Purchase Source:  
Well Source: ..... Yes  
Sells Water to:  
Treatment Plant Capacity (MGD): ..... 0.00  
Percent Daily Average Production: ..... 3.00  
Total Tank Storage Capacity (gallons): ..... 400,000.00  
Total Service Connections: ..... 1,820.00  
Number of Employees: ..... 8.00  
Treatment Operator Class:  
Distribution Operator Class: ..... 2BD  
Customer Rate for 1,000 Gallons: ..... 8.01  
O/M costs 1997: ..... 438,083.00  
O/M costs per Service Connection: ..... 259.53  
Net Revenue 1997: ..... 156,102.00  
Total Water Produced 1997 (gallons): ..... 5,047,000.00  
Water Sold 1997 (gallons): ..... 100,025,046.00  
Unaccounted-for Water 1997 (%): ..... 3.36

Meade County Water District purchases its water from two primary sources: Brandenburg Water Works and Hardin County Water District #1. According to the respective Water Supply Plans, they have an adequate supply of water. The District currently services 1,820 customers in Meade County. The Brandenburg Water Works Water Treatment Plant has a treatment capacity of 701,000 gallons per day. The plant treated an average of 533,236 gallons per day in 1997, or roughly at 76% capacity. The City of Brandenburg is currently in the process of upgrading its water treatment plant, this should alleviate any problems with diminished capacity. The Pirtle Spring Water Treatment Plant for Hardin County Water District #1 has a treatment capacity of 3.0 million gallons per day and averaged 1,973,850 gallons treated per day or roughly 66% of capacity. The District's storage system consists of two storage tanks located at various points within its service area. The total storage capacity of the district is 400,000 gallons.

After the Payneville-Battletown Water Expansion Project is completed, there are no areas to be serviced within the Meade County Water District service area. For all intents and purposes, the District will be roughly 100% serviced. Currently there are 1,820 customers. After completion of the above-referenced project there will be approximately 2,420 total customers in Meade County Water District.

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### **BRANDENBURG WATER WORKS**

PWSID: ..... 0820041  
System Type: ..... COMMUNITY  
Owner Type: ..... MUNICIPAL  
Surface Source:  
Purchase Source:  
Well Source: ..... Yes  
Sells Water to:  
Treatment Plant Capacity (MGD): ..... 0.70  
Percent Daily Average Production: ..... 66.00  
Total Tank Storage Capacity (gallons): ..... 300,000.00  
Total Service Connections: ..... 1,041.00  
Number of Employees: ..... 4.00  
Treatment Operator Class: ..... 2D  
Distribution Operator Class: ..... 3A  
Customer Rate for 1,000 Gallons: ..... 3.77  
O/M costs 1997: ..... Not available  
O/M costs per Service Connection: ..... Not available  
Net Revenue 1997: ..... Not available  
Total Water Produced 1997 (gallons): ..... Not available  
Water Sold 1997 (gallons): ..... Not available  
Unaccounted-for Water 1997 (%): ..... Not available

Brandenburg Water Works obtains water from two wells adjacent to the Ohio River, #6 well and #7 well. According to the Meade County Water Supply Plan there is an adequate supply of water to service the City of Brandenburg. The Water Works currently services 1,041 customers in Meade County. The Brandenburg Water Works Water Treatment Plant has a treatment capacity of 701,000 gallons per day. The plant treated an average of 533,236 gallons per day in 1997, or roughly at 76% capacity. The City of Brandenburg is currently in the process of upgrading its water treatment plant, this should alleviate any problems with diminished capacity. The Water Works' storage system consists of two storage tanks located at various points within its service area. The total storage capacity of the Water Works is 300,000 gallons.

There are two expansion projects proposed by the Brandenburg Water Works involving new customers. When completed, there will no longer be a need to expand service beyond this as roughly 100% of residents within the service area will be provided with water. Currently there are 1,041 customers. After completion of the above referenced projects there will be approximately 1,087 total customers in Brandenburg Water Works. The Water Plant Upgrade Project has already begun.

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### **MULDRAUGH WATER SUPPLY**

PWSID: ..... 0820481  
System Type: ..... COMMUNITY  
Owner Type: ..... MUNICIPAL  
Surface Source:  
Purchase Source:  
Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD): ..... 0.00  
Percent Daily Average Production: ..... 0.00  
Total Tank Storage Capacity (gallons): ..... 0.00  
Total Service Connections: ..... 300.00  
Number of Employees: ..... 3.00  
Treatment Operator Class: ..... 1D  
Distribution Operator Class:  
Customer Rate for 1,000 Gallons: ..... Not available  
O/M costs 1997: ..... Not available  
O/M costs per Service Connection: ..... Not available  
Net Revenue 1997: ..... Not available  
Total Water Produced 1997 (gallons): ..... Not available  
Water Sold 1997 (gallons): ..... Not available  
Unaccounted-for Water 1997 (%): ..... Not available

### **DOE VALLEY UTILITIES INCORPORATED**

PWSID: ..... 0820641  
System Type: ..... COMMUNITY  
Owner Type: ..... PRIVATE  
Surface Source: ..... DOE VALLEY LAKE  
Purchase Source:  
Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD): ..... 0.00  
Percent Daily Average Production: ..... 62.00  
Total Tank Storage Capacity (gallons): ..... 0.00  
Total Service Connections: ..... 0.00  
Number of Employees: ..... 0.00  
Treatment Operator Class: ..... 1D  
Distribution Operator Class: ..... 2A  
Customer Rate for 1,000 Gallons: ..... 3.50  
O/M costs 1997: ..... 133,175.00  
O/M costs per Service Connection: ..... 275.15  
Net Revenue 1997: ..... 1,425.00  
Total Water Produced 1997 (gallons): ..... 41,978,100.00  
Water Sold 1997 (gallons): ..... 31,048,342.00  
Unaccounted-for Water 1997 (%): ..... 8.96

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### **EKRON WATER SYSTEM**

Ekron Water System is located in Meade County. The system serves a population of 244 and has 74 service connections. The municipal, community system has treatment capacity of 94,000 gallons per day. The water source is wells.

#### *Other Systems*

### **BATTLETOWN ELEM SCHOOL**

Battletown Elem School is located in Meade County. The system serves a population of 91 and has 1 service connection. The local, non-transient, non-community system has treatment capacity of 12,960 gallons per day. The water source is wells.

### **EKRON ELEMENTARY SCHOOL**

Ekron Elementary School is located in Meade County. The system serves a population of 315 and has 1 service connection. The local, non-transient, non-community system has treatment capacity of 21,600 gallons per day. The water source is wells.

### **PAYNEVILLE ELEMENTARY SCHOOL**

Payneville Elementary School is located in Meade County. The system serves a population of 225 and has 1 service connection. The local, non-transient, non-community system has treatment capacity of 12,960 gallons per day. The water source is wells.

### **OLIN CHEMICALS GROUP-DOE RUN**

Olin Chemicals Group-Doe Run is located in Meade County. The system serves a population of 650 and has 1 service connection. The private, non-transient, non-community system has treatment capacity of 288,000 gallons per day. The water source is wells.

### **OTTER CREEK PARK**

Otter Creek Park is located in Meade County. The system serves a population of 600 and has 238 service connections. The local, non-transient, non-community system has treatment capacity of 72,000 gallons per day. The water source is surface water from Otter Creek.

### **PRIVATE DOMESTIC SYSTEMS**

About 13,700 people in Meade County rely on private domestic water supplies: 11,000 on wells, and 2,700 on other sources.

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In northern Meade County nearly all drilled wells in the alluvium of the Ohio River valley are adequate for domestic use with many wells yielding several hundred gallons per minute (gpm). Compound horizontal wells set in the alluvium may yield 5,000 gpm, which is sufficient for a community or industrial supply. In the western corner of Meade County most drilled wells are adequate for a domestic supply. Depths of adequate wells range from 100 to 300 feet. In much of central and eastern Meade County except in the lowlands of the major creeks and rivers, about three-fourth of the wells drilled yield enough water for a domestic supply. In the lowlands very few wells yield enough water for a domestic supply except in a few lowland areas bordering streams where yields are sufficient for a few wells to meet the supply needs for domestic use.

Springs with flows ranging from a few gallons per minute to 2266 gpm are found throughout the county. Many of the springs are of the depression type and yield more than 100 gpm when pumped. The larger springs in the county have sufficient flows to be utilized for public or industrial water supplies.

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